SEQUENCE LISTING

<110> Lyamichev, Victor    Allawi, Hatim    Dong, Fang    Neri, Bruce
Vener, Tatiana

<120>  Nucleic Acid Accessible Hybridization Sites

<130>  FORS-04586

<140>  Not yet assigned

<141>  2001-06-15

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<170>  PatentIn version 3.0

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cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggggcccg gcggtctg      118


<210> 85 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 85
gagaccgccg ggccccag                                                        18


<210> 86 <211> 118 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 86
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa    60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggggcccg gcggtctc      118


<210> 87 <211> 20 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 87
ccgccgggcc ccagcgccga                                                      20


<210> 88 <211> 114 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 88
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa    60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggggcccg gcgg          114


239

<210> 89 <211> 20 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 89
gcgccgggcc ccagcgccga                                                        20


<210> 90 <211> 114 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 90
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa      60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggggcccg gcgc            114


<210> 91 <211> 20 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 91
cggccgggcc ccagcgccga                                                        20


<210> 92 <211> 114 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 92
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa      60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggggcccg gccg            114


<210> 93 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 93
cgggccccag cgccgaca                                                          18


<210> 94 <211> 110 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 94
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa      60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggggcccg                 110


<210> 95 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 95
agggccccag cgccgaca                                                          18


<210> 96 <211> 110 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 96
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa      60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggggccct                 110


<210> 97 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

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<400>  97
ccccagcgcc gacagtcg                                                    18


<210>  98 <211>  106 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  98
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa     60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctgggg                    106


<210>  99 <211>  18 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  99
tcccagcgcc gacagtcg                                                    18


<210>  100 <211>  106 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  100
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa     60

cccgctgtcg gggttgaccc acaagcgccg actgtcggcg ctggga                    106


<210>  101 <211>  20 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  101
cgcttgtggg tcaaccccga                                                  20


<210>  102 <211>  87 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  102
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa     60

cccgctgtcg gggttgaccc acaagcg                                         87


<210>  103 <211>  20 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  103
agcttgtggg tcaaccccga                                                  20


<210>  104 <211>  87 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  104
cgccgcgatc aaggagttct tcggcaccag ccagctgagc caattcatgg accagaacaa     60

cccgctgtcg gggttgaccc acaagct                                         87


<210>  105 <211>  16 <212>  DNA <213>  Artificial  <220> <223>  Synthetic
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241

<400> 105
gtgacagagt tgttct                                                         16


<210> 106 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 106
gtgacagatt gttgttct                                                       18


<210> 107 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 107
gtgacagagc gttgttct                                                       18


<210> 108 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 108
gtgacagaaa gttgttct                                                       18


<210> 109 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (9)..(10) <223> The residues at these
positions are spacers with abasic sugar lab
        els.

<400> 109
gtgacagann gttgttct                                                       18


<210> 110 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 110
tcacgtgagc gtccatga                                                       18


<210> 111 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 111
cagaccgcgc acagcggg                                                       18


<210> 112 <211> 17 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 112
gctcacgata ccccgac                                                        17


<210> 113 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 113
tgctcacgat accccgac                                                       18


<210> 114 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 114
cgccgggcgc tcaacccc                                                        18


<210>  115 <211>  18 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  115
acagtcgggc ggttgttc                                                        18


<210>  116 <211>  18 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  116
cgggcccta tgtgggtc                                                         18


<210>  117 <211>  18 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  117
ctcacgtgta tctggtcc                                                        18


<210>  118 <211>  16 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  118
tgacagacgt tgttct                                                          16


<210>  119 <211>  18 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  119
ccccagcggc gttgttct                                                        18


<210>  120 <211>  16 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  120
gtgtcgtttg gaaccg                                                          16


<210>  121 <211>  16 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  121
tgggcgttgc ttgtgg                                                          16


<210>  122 <211>  18 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  122
ttgggcgttg cttgtggt                                                        18


<210>  123 <211>  13 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  123
tccttgatcg cgg                                                             13

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<210>  124 <211>  16 <212>   DNA <213>  Artificial  <220> <223>  Synthetic

<400>  124
cttaaggtag gactac                                                    16


<210>  125 <211>  16 <212>   DNA <213>  Artificial  <220> <223>  Synthetic

<400>  125
cattttccaa ccttaa                                                    16


<210>  126 <211>  14 <212>   DNA <213>  Artificial  <220> <223>  Synthetic

<400>  126
taaggtagga ctac                                                      14


<210>  127 <211>  16 <212>   DNA <213>  Artificial  <220> <223>  Synthetic

<220> <221>  misc_feature <222>  (15)..(16) <223>  The residue at this
position can be any nucleotide.

 <400>  127
taaggtagga ctacnn                                                    16


<210>  128 <211>  18 <212>   DNA <213>  Artificial  <220> <223>  Synthetic

<220> <221>  misc_feature <222>  (15)..(18) <223>  The residue at this
position can be any nucleotide.

 <400>  128
taaggtagga ctacnnnn                                                  18


<210>  129 <211>  20 <212>   DNA <213>  Artificial  <220> <223>  Synthetic

<220> <221>  misc_feature <222>  (15)..(20) <223>  The residue at this
position can be any nucleotide.

 <400>  129
taaggtagga ctacnnnnnn                                                20


<210>  130 <211>  22 <212>   DNA <213>  Artificial  <220> <223>  Synthetic

<220> <221>  misc_feature <222>  (15)..(22) <223>  The residue at this
position can be any nucleotide.

 <400>  130
taaggtagga ctacnnnnnn nn                                             22


<210>  131 <211>  24 <212>   DNA <213>  Artificial  <220> <223>  Synthetic
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<220> <221> misc_feature <222> (15)..(24) <223> The residue at this
position can be any nucleotide.

 <400> 131
taaggtagga ctacnnnnnn nnnn                                          24


<210> 132 <211> 26 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (15)..(26) <223> The residue at this
position can be any nucleotide.

 <400> 132
taaggtagga ctacnnnnnn nnnnnn                                        26


<210> 133 <211> 30 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (15)..(30) <223> The residue at this
position can be any nucleotide.

 <400> 133
taaggtagga ctacnnnnnn nnnnnnnnnn                                    30


<210> 134 <211> 14 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 134
ttttccaacc ttaa                                                     14


<210> 135 <211> 22 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (15)..(22) <223> The residue at this
position can be any nucleotide.

 <400> 135
ttttccaacc ttaannnnnn nn                                            22


<210> 136 <211> 26 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (15)..(26) <223> The residue at this
position can be any nucleotide.

 <400> 136
ttttccaacc ttaannnnnn nnnnnn                                        26


<210> 137 <211> 14 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (1)..(14) <223> The residues in these
positions are 2'-O-methyl nucleotides.

 <400> 137
gtagtcctac ctta                                                     14


245

<210> 138 <211> 14 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (1)..(14) <223> The residues in these positions are 2'-O-methyl nucleotides.

 <400> 138
ttaaggttgg aaaa                                                         14


<210> 139 <211> 24 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (15)..(24) <223> The residue at this position can be any nucleotide.

 <400> 139
ttttccaacc ttaannnnnn nnnn                                              24


<210> 140 <211> 21 <212> DNA <213> Artificial <220> <223> Synthetic

<220> <221> misc_feature <222> (1)..(1) <223> The residue at this 5' end has a tetrachlorofluorescein label.

 <400> 140
ngcatcgttt tgggttctct t                                                 21


<210> 141 <211> 987 <212> RNA <213> Artificial <220> <223> Synthetic

<400> 141
cacauuguuc ugaucaucug aagaucagcu auuagaagag aaagaucagu uaaguccuuu      60

ggaccugauc agcuugauac aagaacuacu gauuucaacu ucuuuggcuu aauucucucg     120

gaaacgauga aauauacaag uuauaucuug gcuuuucagc ucugcaucgu uuuggguucu     180

cuuggcuguu acugccagga cccauaugua caagaagcag aaaaccuuaa gaaauauuuu     240

aaugcagguc auucagaugu agcggauaau ggaacucuuu ucuuaggcau uuugaagaau     300

uggaaagagg agagugacag aaaaauaaug cagagccaaa uugucuccuu uuacuucaaa     360

cuuuuuaaaa acuuuaaaga ugaccagagc auccaaaaga guguggagac caucaaggaa     420

gacaugaaug ucaaguuuuu caauagcaac aaaaagaaac gagaugacuu cgaaaagcug     480

acuaauuauu cgguaacuga cuugaauguc caacgcaaag caauacauga acucauccaa     540

gugauggcug aacugucgcc agcagcuaaa acagggaagc gaaaaaggag ucagaugcug     600

uuucgagguc gaagagcauc ccaguaaugg uuguccugcc uacaauauuu gaauuuuaaa     660

ucuaaaucua uuuauuaaua uuuaacauua uuuauauggg gaauauauuu uuagacucau     720

caaucaaaua aguauuuaua auagcaacuu uuguguaaug aaaaugaaua ucuauuaaua     780

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uauguauuau uuauaauuccu uauauccugu gacugucuca cuuaauccuu uguuuucuga      840

cuaauuaggc aaggcuaugu gauuacaagg cuuuaucuca ggggccaacu aggcagccaa      900

ccuaagcaag aucccauggg uugugguguuu auuucacuug augauacaau gaacacuuau      960

aagugaagug auacuaucca guuacua                                          987


<210>   142 <211>   47 <212>   RNA <213>   Artificial   <220> <223>   Synthetic

<400>   142
ggugguggug ggcgccgucg guguggggcaa gagugcgcug accaucc                   47


<210>   143 <211>   589 <212>   RNA <213>   Oryctolagus cuniculus

<400>   143
acacuugcuu uugacacaac uguguuuacu ugcaauccccc caaaacagac agaauggugc     60

aucuguccag ugaggagaag ucugcgguca cugcccugug gggcaaggug aauguggaag     120

aaguuggugg ugaggcccug ggcaggcugc ugguugucua cccauggacc cagagguucu     180

ucgaguccuu uggggaccug uccucugcaa augcuguuau gaacaauccu aaggugaagg     240

cucauggcaa gaaggugcug gcugccuuca gugagggucu gagucaccug gacaaccuca     300

aaggcaccuu ugcuaagcug agugaacugc acugugacaa gcugcacgug gauccugaga     360

acuucaggcu ccugggcaac gugcugguua uugugcuguc ucaucauuuu ggcaaagaau     420

ucacuccuca ggugcaggcu gccaucaga aggugguggc ugguguggcc aaugcccugg      480

cucacaaaua ccacugagau cuuuuucccu cugccaaaaa uuaugggggac aucaugaagc    540

cccuugagca ucugacuucu ggcuaauaaa ggaaauuuau uuucauugc                 589


<210>   144 <211>   2891 <212>   DNA <213>   Homo sapiens

<400>   144
gcgccccagt cgacgctgag ctcctctgct actcagagtt gcaacctcag cctcgctatg     60

gctcccagca gcccccggcc cgcgctgccc gcactcctgg tcctgctcgg ggctctgttc     120

ccaggacctg gcaatgccca gacatctgtg tcccccctcaa aagtcatcct gccccggggga   180

ggctccgtgc tggtgacatg cagcacctcc tgtgaccagc ccaagttgtt gggcatagag     240

accccgttgc ctaaaaagga gttgctcctg cctgggaaca accggaaggt gtatgaactg     300

agcaatgtgc aagaagatag ccaaccaatg tgctattcaa actgccctga tgggcagtca     360

acagctaaaa ccttcctcac cgtgtactgg actccagaac gggtggaact ggcacccctc     420
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247

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ccctcttggc agccagtggg caagaacctt accctacgct gccaggtgga gggtggggca      480

ccccgggcca acctcaccgt ggtgctgctc cgtggggaga aggagctgaa acgggagcca      540

gctgtggggg agcccgctga ggtcacgacc acggtgctgg tgaggagaga tcaccatgga      600

gccaatttct cgtgccgcac tgaactggac ctgcggcccc aagggctgga gctgtttgag      660

aacacctcgg cccccctacca gctccagacc tttgtcctgc cagcgactcc cccacaactt     720

gtcagccccc gggtcctaga ggtggacacg caggggaccg tggtctgttc cctggacggg      780

ctgttcccag tctcggaggc ccaggtccac ctggcactgg gggaccagag gttgaacccc      840

acagtcacct atggcaacga ctccttctcg gccaaggcct cagtcagtgt gaccgcagag      900

gacgagggca cccagcggct gacgtgtgca gtaatactgg ggaaccagag ccaggagaca      960

ctgcagacag tgaccatcta cagctttccg gcgcccaacg tgattctgac gaagccagag     1020

gtctcagaag ggaccgaggt gacagtgaag tgtgaggccc accctagagc caaggtgacg     1080

ctgaatgggg ttccagccca gccactgggc ccgagggccc agctcctgct gaaggccacc     1140

ccagaggaca acgggcgcag cttctcctgc tctgcaaccc tggaggtggc cggccagctt     1200

atacacaaga accagacccg ggagcttcgt gtcctgtatg ccccccgact ggacgagagg     1260

gattgtccgg gaaactggac gtggccagaa aattcccagc agactccaat gtgccaggct     1320

tggggggaacc cattgcccga gctcaagtgt ctaaaggatg gcactttccc actgcccatc     1380

ggggaatcag tgactgtcac tcgagatctt gagggcacct acctctgtcg ggccaggagc     1440

actcaagggg aggtcacccg cgaggtgacc gtgaatgtgc tctcccccccg gtatgagatt     1500

gtcatcatca ctgtggtagc agccgcagtc ataatgggca ctgcaggcct cagcacgtac     1560

ctctataacc gccagcggaa gatcaagaaa tacagactac aacaggccca aaaagggacc     1620

cccatgaaac cgaacacaca agccacgcct ccctgaacct atcccgggac agggcctctt     1680

cctcggcctt cccatattgg tggcagtggt gccacactga acagagtgga agacatatgc     1740

catgcagcta cacctaccgg ccctgggacg ccggaggaca gggcattgtc ctcagtcaga     1800

tacaacagca tttggggcca tggtacctgc acacctaaaa cactaggcca cgcatctgat     1860

ctgtagtcac atgactaagc caagaggaag gagcaagact caagacatga ttgatggatg     1920

ttaaagtcta gcctgatgag aggggaagtg gtgggggaga catagcccca ccatgaggac     1980

atacaactgg gaaatactga aacttgctgc ctattgggta tgctgaggcc cacagactta     2040

cagaagaagt ggccctccat agacatgtgt agcatcaaaa cacaaaggcc cacacttcct     2100

gacggatgcc agcttgggca ctgctgtcta ctgaccccaa cccttgatga tatgtattta     2160
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248

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ttcatttgtt attttaccag ctatttattg agtgtctttt atgtaggcta aatgaacata      2220

ggtctctggc ctcacggagc tcccagtcca tgtcacattc aaggtcacca ggtacagttg      2280

tacaggttgt acactgcagg agagtgcctg gcaaaaagat caaatggggc tgggacttct      2340

cattggccaa cctgcctttc cccagaagga gtgatttttc tatcggcaca aaagcactat      2400

atggactggt aatggttcac aggttcagag attacccagt gaggccttat tcctcccttc      2460

cccccaaaac tgacaccttt gttagccacc tccccaccca catacatttc tgccagtgtt      2520

cacaatgaca ctcagcggtc atgtctggac atgagtgccc agggaatatg cccaagctat      2580

gccttgtcct cttgtcctgt ttgcatttca ctgggagctt gcactattgc agctccagtt      2640

tcctgcagtg atcagggtcc tgcaagcagt ggggaagggg gccaaggtat tggaggactc      2700

cctcccagct ttggaagggt catccgcgtg tgtgtgtgtg tgtatgtgta gacaagctct      2760

cgctctgtca cccaggctgg agtgcagtgg tgcaatcatg gttcactgca gtcttgacct      2820

tttgggctca agtgatcctc ccacctcagc ctcctgagta gctgggacca taggctcaca      2880

acaccacacc t                                                           2891


<210>  145 <211>  20 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  145
cccccaccac ttcccctctc                                                     20


<210>  146 <211>  18 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  146
tgggagccat agcgaggc                                                       18


<210>  147 <211>  20 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  147
gaggagctca gcgtcgactg                                                     20


<210>  148 <211>  20 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  148
tgcccatcag ggcagtttga                                                     20


<210>  149 <211>  20 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

<400>  149
gcccaagctg gcatccgtca                                                     20
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<210> 150 <211> 18 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 150
ctctctcaat ttggctct                                                    18


<210> 151 <211> 33 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 151
aaagttttta aaaagtttga agtaaaagga gaa                                    33


<210> 152 <211> 14 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 152
cccccttttg gggg                                                        14


<210> 153 <211> 30 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 153
ccctatcttt aaagttttta aaaagtttga                                        30


<210> 154 <211> 74 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 154
ccctatcttt aaagttttta aaaagtttga cccccttttg ggggccctat ctttaaagtt       60

tttaaaaagt ttga                                                        74


<210> 155 <211> 15 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 155
cgcgcggaac gcgcg                                                        15


<210> 156 <211> 16 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 156
cccgggtttt cccggg                                                       16


<210> 157 <211> 20 <212> DNA <213> Artificial <220> <223> Synthetic

<400> 157
aggcgcacca atttggtgtt                                                   20


<210> 158 <211> 1621 <212> RNA <213> Human immunodeficiency virus

<400> 158
ggucucucug guuagaccag aucugagccu gggagcucuc uggcuaacua gggaacccac       60

ugcuuaagcc ucaauaaagc uugccuugag ugcuucaagu agugugugcc cgucuguugu      120

250

gugacucugg uaacuagaga ucccucagac ccuuuuaguc aguguggaaa aucucuagca       180

guggcgcccg aacagggacc ugaaagcgaa agggaaacca gaggagcucu cucgacgcag       240

gacucggcuu gcugaagcgc gcacggcaag aggcgagggg cggcgacugg ugaguacgcc       300

aaaaauuuug acuagcggag gcuagaagga gagagauggg ugcgagagcg ucaguauuaa       360

gcgggggaga auuagaucga ugggaaaaaa uucgguuaag gccaggggga aagaaaaaau       420

auaaauuaaa acauauagua ugggcaagca gggagcuaga acgauucgca guuaauccug       480

gccuguuaga aacaucagaa ggcuguagac aaauacuggg acagcuacaa ccaucccuuc       540

agacaggauc agaagaacuu agaucauuau auaauacagu agcaacccuc uauugugugc       600

aucaaaggau agagauaaaa gacaccaagg aagcuuuaga caagauagag gaagagcaaa       660

acaaaaguaa gaaaaaagca cagcaagcag cagcugacac aggacacagc aaucagguca       720

gccaaaauua cccuauagug cagaacaucc aggggcaaau gguacaucag gccauaucac       780

cuagaacuuu aaaugcaugg guaaaaguag uagaagagaa ggcuuucagc ccagaaguga       840

uacccauguu uucagcauua ucagaaggag ccaccccaca agauuuaaac accaugcuaa       900

acacaguggg gggacaucaa gcagccaugc aaauguuaaa agagaccauc aaugaggaag       960

cugcagaaug ggauagagug cauccagugc augcagggcc uauugcacca ggccagauga      1020

gagaaccaag gggaagugac auagcaggaa cuacuaguac ccuucaggaa caaauaggau      1080

ggaugacaaa uaauccaccu aucccaguag gagaaauuua uaaaagaugg auaauccugg      1140

gauuaaauaa aauaguaaga auguauagcc cuaccagcau ucuggacaua agacaaggac      1200

caaaggaacc cuuuagagac uauguagacc gguucuauaa aacucuaaga gccgagcaag      1260

cuucacagga gguaaaaaau uggaugacag aaaccuuguu gguccaaaau gcgaacccag      1320

auuguaagac uauuuuaaaa gcauugggac cagcggcuac acuagaagaa augaugacag      1380

caugucaggg aguaggagga cccggccaua aggcaagagu uuuggcugaa gcaaugagcc      1440

aaguaacaaa uucagcuacc auaaugaugc agagaggcaa uuuuaggaac caaagaaaga      1500

uuguuaagug uuucaauugu ggcaaagaag ggcacacagc cagaaauugc agggccccua      1560

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g                                                                      1621


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251

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gaaguaauac cacuaacaga agaagcagag cuagaacugg cagaaaacag agagauucua     180

aaagaaccag uacauggagu guauuaugac ccaucaaaag acuuaauagc agaaauacag     240

aagcaggggc aaggccaaug gacauaucaa auuuaucaag agccauuuaa aaaucugaaa     300

acaggaaaau augcaagaau gagggggugcc cacacuaaug auguaaaaca auuaacagag     360

gcagugcaaa aaauaaccac agaaagcaua guaauauggg gaaagacucc uaaauuuaaa     420

cugcccauac aaaaggaaac augggaaaca ugguggacag aguauuggca agccaccugg     480

auuccugagu gggaguuugu uaauaccccu cccuuaguga aauuauggua ccaguuagag     540

aaagaacccа uaguaggagc agaaaccuuc uauguagaug gggcagcuaa cagggagacu     600

aaauuaggaa aagcaggaua uguuacuaau agaggaagac aaaaaguugu cacccuaacu     660

gacacaacaa aucagaagac ugaguuacaa gcaauuuauc uagcuuugca ggauucggga     720

uuagaaguaa acauaguaac agacucacaa uaugcauuag gaaucauuca agcacaacca     780

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gucuaucugg caugggguacc agcacacaaa ggaauuggag gaaaugaaca aguagauaaa     900

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gaacaugaga aauaucacag uaauuggaga gcaauggcua gugauuuuaa ccugccaccu    1020

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cauggacaag uagacuguag uccaggaaua uggcaacuag auuguacaca uuuagaagga    1140

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guagaaucua ugaauaaaga auuaaagaaa auuauaggac agguaagaga ucaggcugaa    1440

caucuuaaga cagcaguaca aauggcagua uucauccaca auuuuaaaag aaaagggggg    1500

auuggggggu acagugcagg ggaaagaaua guagacauaa uagcaacaga cauacaaacu    1560

aaagaauuac aaaaacaaau uacaaaaauu caaaauuuuc gguuuauua cagggacagc    1620

agaaauccac uuuggaaagg accagcaaag cuccucugga aaggugaagg ggcaguagua    1680

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252

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is a cy3 linker group.

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256

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257

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uuuaugcaau gcaucaugcu auuucauacc uaaugaggga guuccaggag auucaaccag   120

gaaaugcaug gaucucaaag gaaacaaaca cccaauaaac ucggaguggc agacugacaa   180

cugugagaca ugcacuugcu acgaaacaga aauuucaugu ugcacccuug uuucuacacc   240

uguggguuau gacaaagaca acugccaaag aaucuucaag aaggaggacu gcaaguauau   300

cgugguggag aagaaggacc caaaaaagac cuguucuguc agugaaugga uaaucuaaug   360

ugcuucuagu aggcacaggg cucccaggcc aggccucauu cuccucuggc cucuaauagu   420

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cuccugacag cagagacuga ucuuugcugg caagcagcug gaagauggac guacuuuguc      180

ugacuacaau auucaaaagg agucuacucu ucaucuugug uugagacuuc gugguggugc      240

uaagaaaagg aagaagaagu cuuacaccac ucccaagaag aauaagcaca agagaaagaa      300

gguuaagcug gcuguccuga aauauuauaa gguggaugag aauggcaaaa uuagucgccu      360

ucgucgagag ugcccuucug augaaugugg ugcuggggug uuuauggcaa gucacuuuga      420

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cauagugguc ugcggaaccg gugaguacac cggaauugcc aggacgaccg gguccuuucu       180

uggauaaacc cgcucaaugc cuggagauuu gggcgugccc ccgcaagacu gcuagccgag       240

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ggaggucucg uagaccgugc accaugag                                         328


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<210> 242 <211> 328 <212> RNA <213> Hepatitis C virus

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cuagccaugg cguuaguaug agugucgugc agccuccagg accccccuc ccgggagagc       120

cauagugguc ugcggaaccg gugaguacac cggaauugcc aggacgaccg gguccuuucu       180

uggaucaacc cgcucaaugc cuggagauuu gggcgugccc ccgcgagacu gcuagccgag       240

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ggaggucucg uagaccgugc accaugag                                         328


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cuagccaugg cguuaguaug agugucguac agccuccagg cccccccuc ccgggagagc       120

cauagugguc ugcggaaccg gugaguacac cggaauugcc gggaagacug gguccuuucu       180

uggauaaacc cacucuaugc ccggccauuu gggcgugccc ccgcaagacu gcuagccgag       240

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ggaggucucg uagaccgugc accaugag                                         328


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cauagugguc ugcggaaccg gugaguacac cggaaucgcu ggggugaccg gguccuuucu       180

uggaacaacc cgcucaauac ccagaaauuu gggcgugccc ccgcgagauc acuagccgag       240

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ggaggucucg uagaccgugc accaugag                                          328


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<210> 248 <211> 17 <212> DNA <213> Artificial <220> <223> Synthetic

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<210> 251 <211> 19 <212> DNA <213> Artificial <220> <223> Synthetic

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<210>  258 <211>  15 <212>  DNA <213>  Artificial  <220> <223>  Synthetic

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<210>  259 <211>  1024 <212>  RNA <213>  Homo sapiens

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uuugcaagaa acaggugcuu aacacuaauu caccuccuga acaagaaaaa ugggcuguga     120

ccggaacugu gggcucaucg cuggggcugu cauuggugcu guccuggcug uguuuggagg     180

uauucuaaug ccaguuggag accugcuuau ccagaagaca auuaaaaagc aaguuguccu     240

cgaagaaggu acaauugcuu uuaaaaauug gguuaaaaca ggcacagaag uuuacagaca     300

guuuuggauc uuugaugugc aaaauccaca ggaagugaug augaacagca gcaacauuca     360
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ccaggacgcu gaggacaaca cagucucuuu ccugcagccc aauggugcca ucuucgaacc    480

uucacuauca guuggaacag aggcugacaa cuucacaguu cucaaucugg cuguggcagc    540

ugcaucccau aucuaucaaa aucaauuugu ucaaaugauc cucaauucac uuauuaacaa    600

gucaaaaucu ucuauguucc aagucagaac uuugagagaa cuguuauggg gcuauaggga    660

uccauuuuug aguuugguuc cguacccugu uacuacuaca guuggucugu uuuauccuua    720

caacaauacu gcagauggag uuuauaaagu uuucaaugga aaagauaaca uaaguaaagu    780

ugccauaauc gacacauaua aagguaaaag gaaucugucc uauugggaaa gucacugcga    840

caugauuaau gguacagaug cagccucauu uccaccuuuu guugagaaaa gccagguauu    900

gcaguucuuu ucuucugaua uuugcagguc aaucuaugcu guauuugaau ccgacguuaa    960

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aaaaauaaau acaacacacc caaauacagg augauaguuc gugugacaaa cagagauauc         180

auuugucaga uugcuuaugc ccguauagag ggggauauga uagucugcgc acguuaugca         240

cacgaacugc caaaauaugg ugugaagguu ggccugacaa auuaugcugc agcauauugu         300

acuggccugc ugcuggcccg caggcuucuc aauagguuug gcauggacaa gaucuaugaa         360

ggccaagugg aggugacugg ugaugaauac aauguggaaa gcauugaugg ucagccaggu         420

gccuucaccu gcuauuugga ugcaggccuu gccagaacua ccacuggcaa uaaaguuuuu         480

ggugcccuga agggagcugu ggauggaggc uugucuaucc cucacaguac caaacgauuc         540

ccugguuaug auucugaaag caaggaauuu aaugcagaag uacaucggaa gcacaucaug         600

ggccagaaug uugcagauua caugcgcuac uuaauggaag aagaugaaga ugcuuacaag         660

aaacaguucu cucaauacau aaagaacagc guaacuccag acaugaugga ggagauguau         720

aagaaagcuc augcugcuau acgagagaau ccagucuaug aaaagaagcc caagaaagaa         780

guuaaaaaga agagguggaa ccgucccaaa augucccuug cucagaagaa ggaucgggua          840

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cggccagaag ccaguagucc gggagcgugg acccuauguc uacagggagu ucagacaaaa     180

ggucaacauc accuucaaug acaacgacac cguguccuuc guggagaacc gcagccucca     240

uuuccagccu gacaagucgc auggcucaga gagugacuac auuguacugc cuaacaucuu     300

gguccugggg ggcucgauau ugauggagag caagccugug agccugaagc ugaugaugac     360

cuuggcgcug gucaccaugg gccagcgugc uuuuaugaac cgcacaguug gugagauccu     420

gugggggcuau gacgaucccu ucgugcauuu ucucaacacg uaccucccag acaugcuucc     480

cauaaagggc aaauuuggcc uguuuguugg gaugaacaac ucgaauucug gggucuucac     540

ugucuucacg ggcgucagca auuucagcag gauccaucug guggacaaau ggaacggacu     600


268

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gaugugggca cccuucauga cacccgaauc cucgcuggaa uucuucagcc cggaggcaug      720

cagguccaug aagcugaccu acaacgaauc aaggguguuu gaaggcauuc ccacguaucg      780

cuucacggcc cccgauacuc uguuugccaa cggguccguc uacccaccca acgaaggcuu      840

cugcccaugc cgagagucug gcauucagaa ugucagcacc ugcagguuug gugcgccucu      900

guuucucucc caccccccacu uuuacaacgc cgacccugug uugucagaag cuguucuugg      960

ucugaacccu aacccaaagg agcauuccuu guuccuagac auccauccgg ucacugggau     1020

ccccaugaac uguucuguga agaugcagcu gagccucuac aucaaaucug ucaagggcau     1080

cgggcaaaca gggaagaucg agccaguagu ucugccguug cugugguucg aacagagcgg     1140

agcaaugggu ggcaagcccc ugagcacguu cuacacgcag cuggugcuga ugccccaggu     1200

ucuucacuac gcgcaguaug ugcugcuggg gcuuggaggc cuccuguugc uggugcccau     1260

caucugccaa cugcgcagcc aggagaaaug cuuuuuguuu uggaguggua guaaaaaggg     1320

cucccaggau aaggaggcca uucaggccua cucugagucc cugaugucac cagcugccaa     1380

gggcacggug cugcaagaag ccaagcuaua ggguccugaa gacacuauaa gcccccccaaa     1440

ccugauagcu uggucagacc agccacccag ucccuacacc ccgcuucuug aggacucucu     1500

cagcggacag cccaccagug ccauggccug agcccccaga ugucacaccu guccgcacgc     1560

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269

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ucaccgucau cagcaucgac cgguaccucg ccaucguccu ggccgccaac uccaugaaca      240

accggacagu gcaacacggc gucaccauca gucugggcgu cugggcggcg gccaucuuag      300

uggcgucgcc ccaguucaug uucacaaaga gaaaggacaa cgaauguuug ggugauuacc      360

ccgagguccu gcaggaaauc uggcccgugc uccgcaacuc ggaggucaac auccugggcu      420

ucguccugcc cuugcuuauc augagcuuuu gcuacuuccg caucguccgg acgcuguuuu      480

ccugcaagaa ccggaagaag gccagagcca uuaggcucau ccucuuggug guuguugucu      540

ucuuccucuu cuggacgccu uacaacaucg ugauuuuccu ggagacucuc aaauucuaca      600

acuucuuccc uaguuguggc augaagaggg accugaggug ggcccuuagu gugacggaga      660

caguggcguu uagccacugc ugccucaacc ccuuuaucua cgcuuucgcu ggggaaaagu      720

ucagaaggua ccugagacac cuguacaaca agugccuggc cguccugugc ggucguccug      780

uccacgccgg cuucucaaca gagucccaga ggagcaggca ggacagcauu cugagcagcu      840

ugacucacua cacaagcgag ggagagggau cucuccugcu cugaaggguc ccccgaccc      900

cgacucuacu aagaacccag aguuccugca ucugacucug uguaaugaaa acagauucac      960

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acacacacac acacacacac acacacacac acacacacac accccgcucc uccugcauuu      1020

uaugugcaag aaauacggac cagguaccug c                                     1051


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cuuguucuuu gaagcugaug gcccuaaaca gaugaagugc uccuuccagg accuggaccu     120

cugcccucug gauggcggca uccagcuacg aaucuccgac caccacuaca gcaagggcuu     180

caggcaggcc gcgucaguug uuguggccau ggacaagcug aggaagaugc ugguucccug     240

cccacagacc uuccaggaga augaccugag caccuucuuu cccuucaucu uugaagaaga     300

accuaucuuc uucgacacau gggauaacga ggcuuaugug cacgaugcac cguacgauc      360

acugaacugc acgcuccggg acucacagca aaaaagcuug gugaugucug guccauauga     420

acugaaagcu cuccaccucc agggacagga uauggagcaa caguggugu ucuccauguc     480

cuuuguacaa ggagaagaaa guaaugacaa aauaccugug gccuugggcc ucaaggaaaa     540

gaaucuguac cuguccugcg uguugaaaga ugauaagccc acucuacagc uggagagugu     600

agaucccaaa aauuacccaa agaagaagau ggaaaagcga uuugucuuca caagauaga      660

aaucaauaac aagcuggaau uugagucugc ccaguucccc aacugguaca ucagcaccuc     720

ucaagcagaa aacaugcccg ucuuccuggg agggaccaaa ggcggccagg auauaacuga     780

cuucaccaug caauuugugu cuuccuaaag agagcuguac ccagagaguc cugugcugaa     840

uguggacuca aucccuaggg cuggcagaaa gggaacagaa agguuuuuga guacggcuau     900

agccuggacu uuccuguugu cuacaccaau gcccaacugc cugccuuagg guagugcuaa     960

gaggaucucc uguccaucag ccaggacagu cagcucucuc cuuucagggc caaucccag     1020

cccuuuuguu gagccaggcc ucucucaccu cuccuacuca cuuaaagccc gccugacaga    1080

aaccacggcc acauuugguu cuaagaaacc cucugucauu cgcucccaca uucugaugag    1140

caaccgcuuc ccuauuuauu uauuuauuug uuuguuuguu uuauucauug gucuaauuua    1200


273

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aucaauucaa uuuggacugg ugugcucucu uuaaaucaag uccuuuaauu aagacugaaa      1320

auauauaagc ucagauuauu uaaaugggaa uauuuauaaa ugagcaaaua ucauacuguu      1380

ca                                                                     1382
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274

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acacugucaa auugcgggga agcccuaaag auucaacuac uaagcaguuu guggaaacac       120

agcuguggcc gaguuaauag cccuggguau aguaacaaug uugaauauga aucuuuugcg       180

agaugaaaug ggugauccgc agccaagucc uaagggcauu uuugucuaug gaugcaguuc       240

aacgacuaga uggcaguggg uauuguaagg aauugcaguu uucuugcagu gcuuaaggua       300

uagucuaucc ucuuucgaaa gaaagaguau au                                    332


275

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aggccucgaa gcaguguuca ccuugggagu gcgcaagcac aaagaggua gugguguaug          180

ggguuaaucc cguggcgagc cgucagggcg cgaguucugg caguggccgu cguagagcac          240

ggaaagguau gggcuggcuc ucugagucgg cuuaagguac gugccguccc acacgaugaa          300

aagugugcgg ugcagaauag uucccacaga acgaagcugc gccggagaaa gcgauuucuu          360

ggagcaau                                                                   368


<210> 333 <211> 165 <212> RNA <213> Earwig R2 element

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uaauaccguu guuuuuuuag ugggguauucu uuuacgcuuu cguaggagcg agucccacac          120

ucuuggagca auccggggua gugccuaaac gcauuucuuc aacgu                          165


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gcucgcuccc uuggcuuccc uuauauauuu uaacaucaga aacagacauu aaacaucuac          120

ugauccaauu ucgccggcgu acggccacga ucgggagggu gggaaucucg ggggucuucc          180

gauccuaauc caugaugauu acgaccugag ucacuaaaga cgauggcaug augauccggc          240

gaug                                                                       244